Faculty of Civil Engineering / CIVIL ENGINEERING / ENGINEERING GEOLOGY

Course:	ENGINEERING GEOLOGY							
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exer cises+Laboratory)				
6619	Optional	2	3.5	2+.33+.67				
Programs	CIVIL ENGINEERING							
Prerequisites	None.							
Aims	This Subject enables acqusition of basic information in fields of engineering geology .							
Learning outcomes	After having passed the exam, students will be able to: 1. Explain engeneering-geologial terms ; 2. Explain phases of engeneering-geologial investigations; 3. Create engeneering-geologial sections; 4. Understand engeneering-geologial maps; 5. Understand engeneering-geologial projects; 6. Understand engeneering-geologial reports.							
Lecturer / Teaching assistant	Prof. Dr. Milan Radulović - lecturer							
Methodology	Lectures, exercises, consultation, field work.							
Plan and program of work								
Preparing week	Preparation and registration of the semester							
I week lectures	Introduction. Igneous, sedimentary and metamorphic rocks.							
I week exercises	Identification of rocks.							
II week lectures	Tectonics. Geological, hydrogeological and engineering geological maps.							
II week exercises	Geological and hydrogeological maps.							
III week lectures	Engineering-geological types of rocks. Geological and engineering-geological characteristics of Montenegro.							
III week exercises	Engineering-geological maps.							
IV week lectures	Methodology of engineering-geological ground investigation.							
IV week exercises	Engineering-geological section according to drilling data.							
V week lectures	Engineering-geoloical processes (landslides, escarpments).							
V week exercises	Engineering-geoloical section over a landslide.							
VI week lectures	Investigations of landslides.							
VI week exercises	Elements of a landslide.							
VII week lectures	Technical measures to improve properties of a ground: compaction, piles, anchors, injection, drainage.							
VII week exercises	Plate loading test.							
VIII week lectures	I Test, I Colloquium.							
VIII week exercises	l Test, l Colloquium.							
IX week lectures	Engineering-geological conditions for construction of settlements.							
IX week exercises	An example of engineering-geological report for the construction of residential building.							
X week lectures	Engineering-geological conditions for tunnels and roads (open route) construction.							
X week exercises	RMR classification.							
XI week lectures	Engineering-geological conditions for construction of bridges and dams.							
XI week exercises	Engineering-geological section for a bridge construction.							
XII week lectures	Investigation of geological building material deposits.							
XII week exercises	Engineering-geological section over a deposit and reserves assessment.							
XIII week lectures	Eurocode 7 - Geotechnical design, Part 2: Ground investigation and testing							
XIII week exercises	Finalisation of graphic works.							

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XIV week led	tures	Field visit.								
XIV week ex	ercises	Field visit.								
XV week lect	tures	II Test, Il Colloquium.								
XV week exe	ercises	II Test, Il Colloquium.								
Student wo	orkload	Weekly Lectures: 3.5 credits x $40/30 = 4h 40min$ Total workload for the Subject $3.5x30 = 105h$								
Per week			Per semester							
 3.5 credits x 40/30=4 hours and 40 minuts 2 sat(a) theoretical classes 0 sat(a) practical classes 0 excercises 1 hour(s) i 40 minuts of independent work, including consultations 			Classes and final exam: 4 hour(s) i 40 minuts x 16 =74 hour(s) i 40 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 4 hour(s) i 40 minuts x 2 =9 hour(s) i 20 minuts Total workload for the subject: 3.5 x 30=105 hour(s) Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 21 hour(s) i 0 minuts Workload structure: 74 hour(s) i 40 minuts (cources), 9 hour(s) i 20 minuts (preparation), 21 hour(s) i 0 minuts (additional work)							
Student obligations				Attendance of lectures and exercises, homework and testing.						
Consultations			Monday 11.00-13.00							
Literature			Mićko Radulović, Basic Geology, Textbook (2003), University of Montenegro; Mićko Radulović, Engeneering Geology, Script (2003), University of Montenegro.							
Examination methods			 Attendance to lectures and exercises: max 5 pt; Graphic works: max 5 pt; Tests: max 20 pt; Colloquiums: max 40 pt; Final exam: max 30 pt; Pass requires minimum 50 pt. 							
Special remarks										
Comment			Further information about the Subject can be required from the lecturer, assistant, head of the study program and vice dean of academic affairs.							
Grade:	F		E	D	С	В	Α			
Number of points	less than 50 points		greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points			